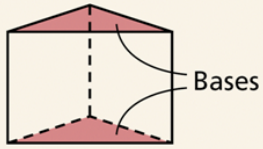
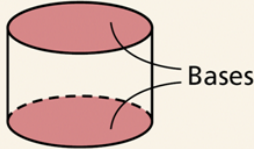
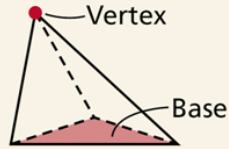
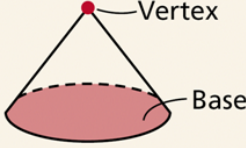


Pre-AP Geometry 11-1: Solid Geometry

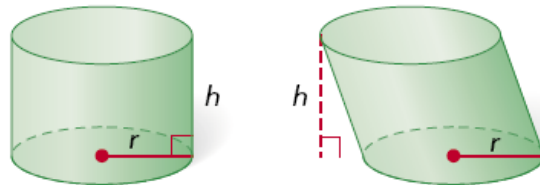
Three-Dimensional Figures

TERM	EXAMPLE
A prism is formed by two parallel congruent polygonal faces called <i>bases</i> connected by faces that are parallelograms.	
A cylinder is formed by two parallel congruent circular bases and a curved surface that connects the bases.	
A pyramid is formed by a polygonal base and triangular faces that meet at a common vertex.	
A cone is formed by a circular base and a curved surface that connects the base to a vertex.	

Pre-AP Geometry 11-2: Volumes and Prisms of Cylinders

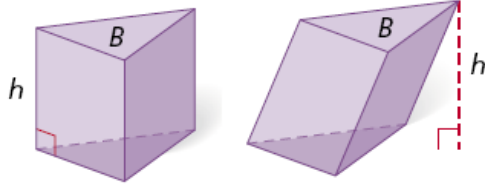
Volume of a Cylinder

The volume of a cylinder with base area B , radius r , and height h is $V = Bh$, or $V = \pi r^2 h$.

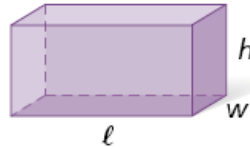


Volume of a Prism

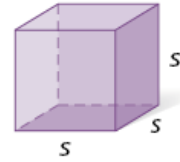
The volume of a prism with base area B and height h is $V = Bh$.



The volume of a right rectangular prism with length ℓ , width w , and height h is $V = \ell wh$.



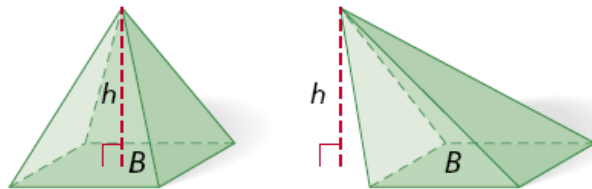
The volume of a cube with edge length s is $V = s^3$.



Pre-AP Geometry 11-3: Volumes of Pyramids and Cones

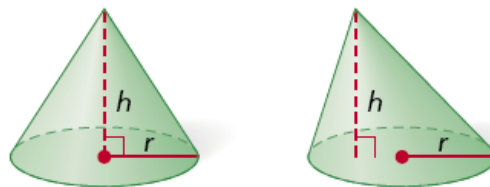
Volume of a Pyramid

The volume of a pyramid with base area B and height h is $V = \frac{1}{3}Bh$.



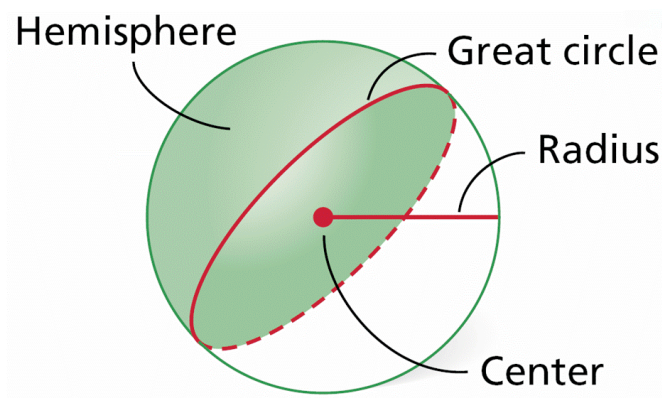
Volume of Cones

The volume of a cone with base area B , radius r , and height h is $V = \frac{1}{3}Bh$,
or $V = \frac{1}{3}\pi r^2 h$.



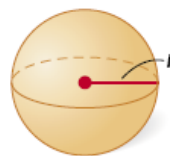
Pre-AP Geometry 11-4: Spheres

A **sphere** is the locus of points in space that are a fixed distance from a given point called the **center of a sphere**. A **radius of a sphere** connects the center of the sphere to any point on the sphere. A **hemisphere** is half of a sphere. A **great circle** divides a sphere into two hemispheres



Volume of a Sphere

The volume of a sphere with radius r is $V = \frac{4}{3}\pi r^3$.



Surface Area of a Sphere

The surface area of a sphere with radius r is $S = 4\pi r^2$.

